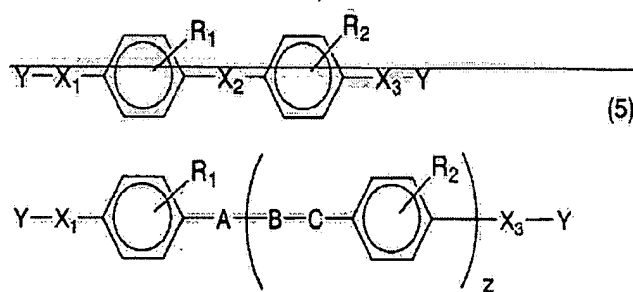


Amendments to the Claims:

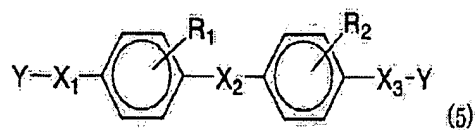
Claims 1 – 14 (Cancelled)

15. (Currently amended) A photosensitive composition for optical waveguides comprising an organic oligomer and a polymerization initiator, said organic oligomer being an oligomer represented by the following formula-(5):



wherein R₁ and R₂ may be the same as or different from each other, and denote hydrogen, halogen, an alkyl group, an alkoxy group or a trifluoromethyl group; X₁, X₂ and X₃ may be the same as or different from each other, and denote a connecting connection group including at least one selected from the group consisting of an alkylene, alkyleneoxy, and oxyalkylene and aromatic group; and Y denotes a polymerization activating group and A denotes a connection group selected from an alkylene group; B denotes a connection group selected from the group consisting of a substituted or an unsubstituted phenylene, a substituted or an unsubstituted oxyalkylene; C denotes a connection group selected from alkyleneoxy or oxyalkylene; and z is 0 to 2.

16. (Currently amended) A method of producing said a photosensitive composition for optical waveguides ~~as claimed in Claim 15, said method comprising the steps of:~~ comprising an organic oligomer and a polymerization initiator, said organic oligomer being an oligomer represented by the following formula (5):



wherein R₁ and R₂ may be the same as or different from each other, and denote hydrogen, halogen, an alkyl group, an alkoxy group, or a trifluoromethyl group; X₁, X₂, and X₃ may be the same as or different from each other, and denote a connection group including at least one selected from the group consisting of an alkylene, alkyleneoxy, oxyalkylene, and aromatic group; and Y denotes a polymerization activating group, said method comprising the steps of:
heating ~~a silicone~~ said organic oligomer in the presence of a solid catalyst; and
filtering said solid catalyst, concentrating filtrate, and further adding a polymerization initiator.

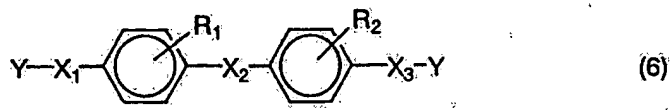
17. (Original) A method of forming a polymer optical waveguide pattern, comprising the steps of:

applying and drying a photosensitive composition for optical waveguides;
irradiating said resultant photosensitive composition thin film for optical waveguides with light through a mask; and
directly forming a core-ridge pattern by wet etching said photosensitive composition thin film;

wherein the photosensitive composition for optical waveguides as claimed in Claim 15 is used as said photosensitive composition for optical waveguides.

18. (Cancelled)

19. (Currently amended) A method of producing the photosensitive composition for optical waveguides ~~as claimed in Claim 18, said method comprising the steps of:~~ comprising an organic oligomer and a polymerization initiator, said organic oligomer being an oligomer represented by the following formula (6):



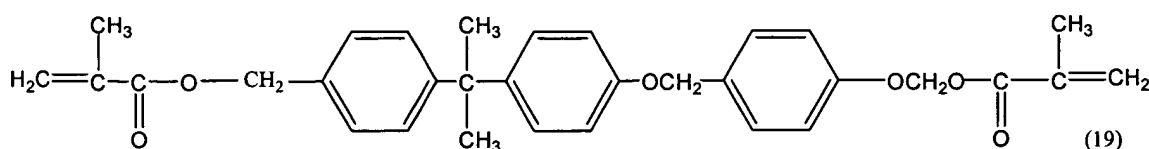
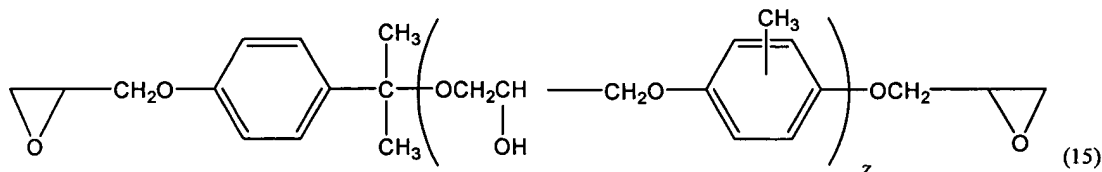
wherein R₁ and R₂ may be the same as or different from each other, and denote hydrogen, halogen, an alkyl group, an alkoxy group, or a trifluoromethyl group; X₁, X₂ and X₃ may be the same as or different from each other, and denote a connection group including at least one selected from the group consisting of an alkylene, alkyleneoxy, oxyalkylene, and aromatic group, and including at least one OH group; and Y denotes a polymerization activating group, said method comprising the steps of:

heating a ~~silicone~~ said organic oligomer in the presence of a solid catalyst; and
filtering said solid catalyst, concentrating filtrate, and further adding a polymerization initiator.

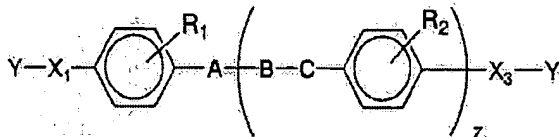
20. (Cancelled)

21. (New) The photosensitive composition for optical waveguides claimed in claim 15, wherein said B component is an oxyalkylene, said C component is an alkyleneoxy, and the B-C unit includes at least one OH group.

22. (New) The photosensitive composition for optical waveguides claimed in claim 15, wherein said organic oligomer is selected from the compound having the following formula (15) or (19):

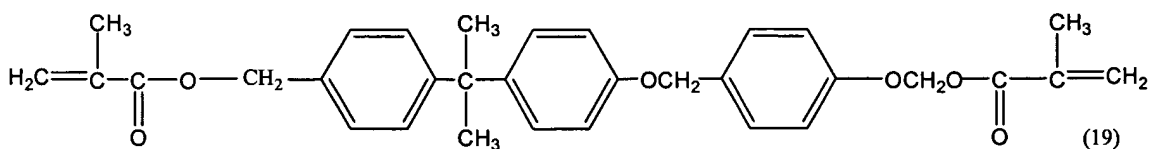
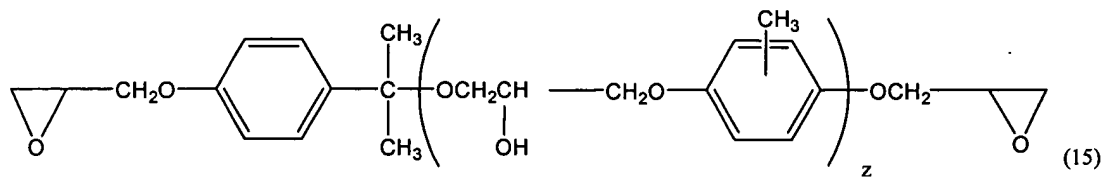


23. (New) The method of producing a photosensitive composition for optical waveguides as claimed in claim 16, wherein said organic oligomer has the following formula:

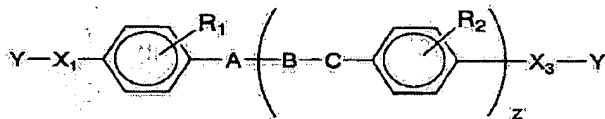


wherein R_1 and R_2 may be the same as or different from each other, and denote hydrogen, halogen, an alkyl group, an alkoxy group, or a trifluoromethyl group; X_1 and X_3 may be the same as or different from each other, and denote a connection group including at least one selected from the group consisting of an alkyleneoxy and oxyalkylene group; Y denotes a polymerization activating group and A denotes a connection group selected from an alkylene group; B denotes a connection group selected from the group consisting of a substituted or an unsubstituted phenylene, a substituted or an unsubstituted oxyalkylene; C denotes a connection group selected from alkyleneoxy or oxyalkylene; and z is 0 to 2.

24. (New) The method of producing a photosensitive composition for optical waveguides as claimed in claim 16, wherein said organic oligomer is selected from the compound having the following formula (15) or (19):

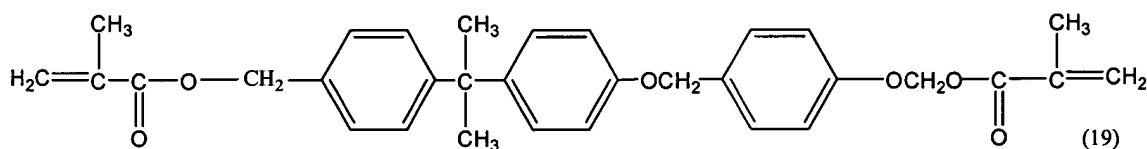
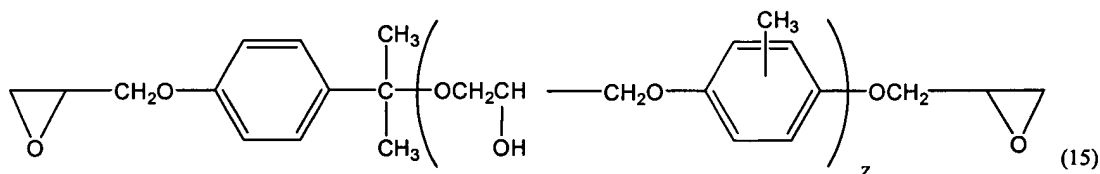


25. (New) The method of producing a photosensitive composition for optical waveguides as claimed in claim 19, wherein said organic oligomer has the following formula:



wherein R₁ and R₂ may be the same as or different from each other, and denote hydrogen, halogen, an alkyl group, an alkoxy group, or a trifluoromethyl group; X₁ and X₃ may be the same as or different from each other, and denote a connection group including at least one selected from the group consisting of an alkyleneoxy and oxyalkylene group; Y denotes a polymerization activating group and A denotes a connection group selected from an alkylene group; B denotes a connection group selected from the group consisting of a substituted or an unsubstituted phenylene, and a substituted or an unsubstituted oxyalkylene; C denotes a connection group selected from alkyleneoxy or oxyalkylene; and z is 0 to 2.

26. (New) The method of producing a photosensitive composition for optical waveguides as claimed in claim 19, wherein said organic oligomer is selected from the compound having the following formula (15) or (19):



27. (New) The method of forming a polymer optical waveguide pattern as claimed in claim 17, wherein said organic oligomer is selected from the compound having the following formula (15) or (19):

